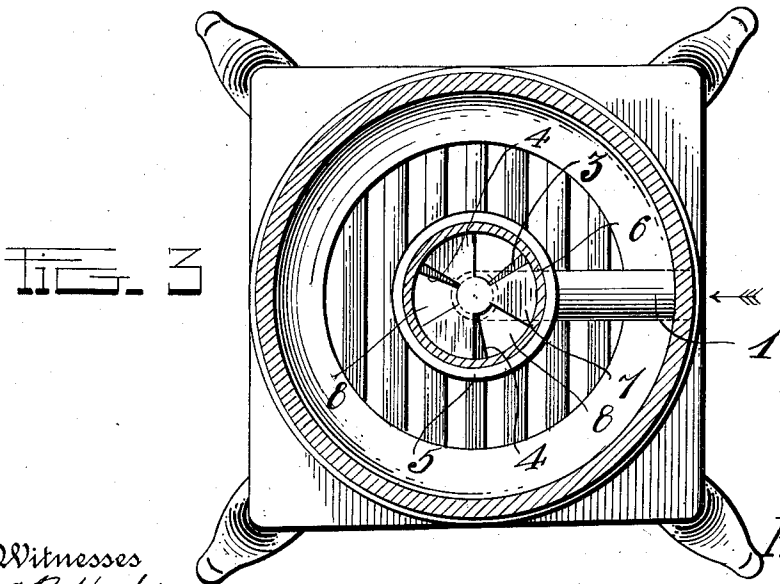
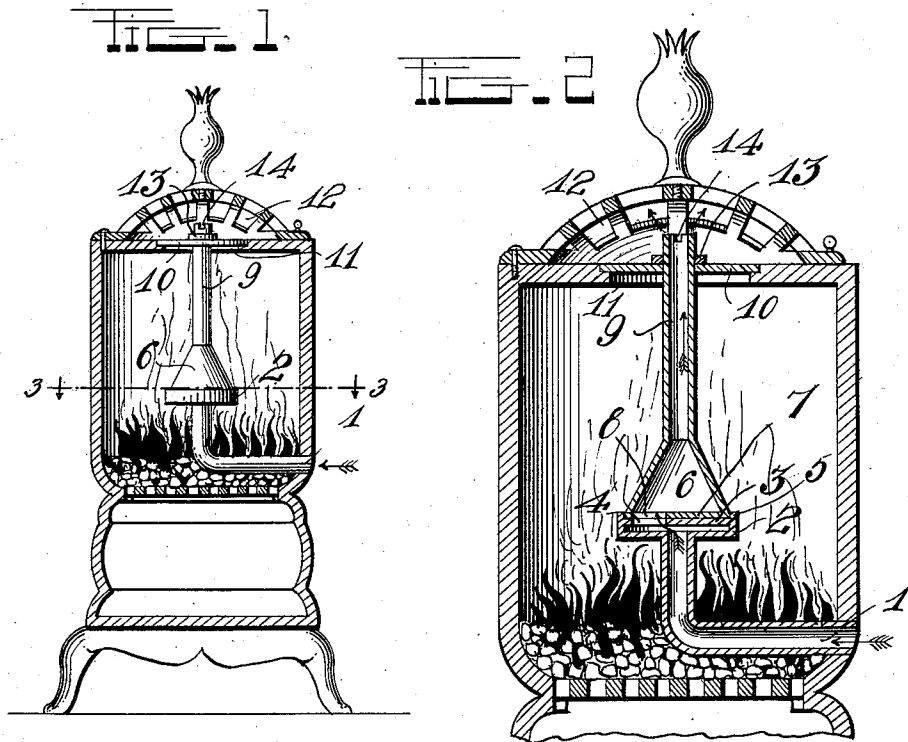


P. G. BERTHOLF.
AIR HEATING ATTACHMENT FOR STOVES.
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1,023,193.

Patented Apr. 16, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

PSALM G. BERTHOLF, OF GOSHEN, NEW YORK.

AIR-HEATING ATTACHMENT FOR STOVES.

1,023,193.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed February 27, 1911. Serial No. 611,162.

To all whom it may concern:

Be it known that I, PSALM G. BERTHOLF, a citizen of the United States, residing at Goshen, in the county of Orange and State of New York, have invented certain new and useful Improvements in Air-Heating Attachments for Stoves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in air heating attachments for stoves.

One object of the invention is to provide an attachment of this character comprising means whereby cold air is conducted directly into the body of the fire and thus heated to an intense degree after which the heated air is discharged into the room.

Another object is to provide means to control the discharge of the air thus heated.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a vertical sectional view through a heating stove showing the application of the invention; Fig. 2 is an enlarged vertical sectional view through the upper portion of the heating stove and through the attachment; Fig. 3 is a horizontal sectional view on the line 3—3 of Fig. 1.

Referring more particularly to the drawings wherein the attachment is shown as applied to a heating stove, 1 denotes a cold air inlet tube or pipe which is of substantially right angular form and is adapted to be placed directly into the body of the fire as shown. The horizontal portion of the tube has one end extending through one side of the stove and opening into the room. The vertical portion of the pipe or tube 1 extends a short distance above the fire and has formed thereon a hollow circular head 2 in which is arranged a transverse partition or fixed damper plate 3 having formed therein a plurality of radially disposed air passages 4. The sides of the head 2 project above the damper plate or partition 3 and form a circular flange 5.

Revolubly engaged with the head 2 and seated on the plate 3 within the flange 5 is a hot air hood 6, said hood being of conical form and having on its lower end a damper plate 7 in which is formed a series of radial heat passages 8. The plate 7 rests on or is in close engagement with the plate 3 in the head 2 and is adapted to coact with said plate to open and close the passages therein when the hood 6 is turned in one direction or the other thereby regulating the size of the openings in the plates and thus controlling the passage of the heated air there-through. On the upper end of the hood 6 is formed an upwardly projecting hot air discharge pipe 9 the upper end of which extends through and is revolubly mounted in a cover plate 10 adapted to fit into the usual opening 11 in the top of the stove below the ornamental cap 12 as clearly shown in Figs. 1 and 2 of the drawing. On the upper portion of the pipe immediately above the plate 10 is arranged a collar 13, said collar being shrunk or otherwise secured to the pipe. In the upper end of the pipe are formed oppositely disposed notches 14 with which is adapted to be engaged a blade or any suitable implement whereby the pipe 9 and hood 6 may be readily turned to open and close the hot air passages in the plates 3 and 7 thus regulating the passage of the hot air through the hood and discharge pipe. The hot air on leaving the pipe 9 passes into the room through the openwork of the cap 12 and thus greatly increases the heating capacity of the stove.

While I have herein shown and described the heating stove as having arranged therein but one of my improved air heating attachments it is obvious that two or more of the same may be arranged in the stove independent of each other or that the hot air receiving and discharging hood may be provided with a plurality of air inlet and discharge tubes.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention what I claim is:

1. An air heating attachment for stoves comprising an air inlet and heating pipe adapted to be located in the fire box of a stove and opening through one side thereof, a circular head arranged on the upper end of said pipe, a transverse partition arranged in said head and having formed therein a series of radial hot air passages whereby said partition forms a stationary damper plate, a conical hood having a revoluble engagement with the upper end of said head, a base plate arranged in the lower end of said hood and having formed therein a series of passages adapted to be brought into alinement with the passages in said stationary damper plate whereby the discharge of hot air from the head into said hood is controlled, a hot air discharging tube connected with said hood and projecting through the upper portion of the stove, a cover plate arranged on said discharge tube and adapted to close the opening in the upper end of the stove, and

means whereby said tube and hood are turned and the damper plate on the hood adjusted to regulate the hot air discharge passages in said head.

2. An air heating attachment for stoves comprising an air inlet and heating pipe whose outer end admits cold air and whose inner end is adapted to extend upward through the fire pot, a flat circular hollow head communicating with said inner end and having a surrounding flange and a fixed damper plate provided with openings, a conical hood having a base plate provided with openings adapted to be brought into alinement with those in said damper plate, the base plate resting revolubly thereon within said flange, and a discharge tube adapted to lead from the apex of the conical hood upward through the top of the stove and having notches in its upper end for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PSALM G. BERTHOLF.

Witnesses:

JOHN FARRELL,
A. G. NORTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."